

**AMENDMENTS TO THE CLAIMS**

1. (Currently Amended) A head for the linear dimension checking of mechanical pieces, [[including]] comprising:

    a casing [[(1)]],

    a movable arm [[(7)]] with a first portion [[(8)]] partly located inside the casing [[(1)]] and a second portion [[(9)]] entirely located at the exterior of the casing [[(1)]],

    a position transducer [[(11)]] inside the casing [[(1)]] and associated with said first portion [[(8)]]>,

    a feeler [[(19)]] coupled with said second portion [[(9)]] for contacting the piece to be checked,

    a zero-setting mechanism [[(40)]] for adapting the head, by adjusting the [[mutual]] relative arrangement between the first portion [[(8)]] and the second portion [[(9)]] of the movable arm [[(7)]], to check pieces with different nominal dimensions, the zero-setting mechanism [[(40)]] including a movable mechanical reference [[(27)]] between the movable arm [[(7)]] and the casing [[(1)]], arranged at the exterior of the casing [[(1)]], the movable mechanical reference [[(27)]] being adapted to [[take]] have at least two positions, to hold said first portion [[(8)]] of the movable arm [[(7)]] in a preset position with respect to the casing [[(1)]] and to release the first portion [[(8)]] respectively,

[[characterized in that]] wherein the zero-setting mechanism [[(40)]] includes a quick locking/unlocking device [[(20)]] between said first portion [[(8)]] and said second portion [[(9)]] of the movable arm [[(7)]].

2. (Currently Amended) The head according to claim 1, wherein the zero-setting mechanism [[(40)]] includes a first abutment and reference surface [[(43)]], integral with the casing [[(1)]], said movable mechanical reference [[(27)]] including a second abutment and reference surface [[(44)]], integral with the movable arm [[(7)]], said first abutment and reference surface [[(43)]] and said second abutment and reference surface [[(44)]] being adapted to mutually cooperate for defining said preset position.

3. (Currently Amended) The head according to claim 2, wherein the quick locking/unlocking device [[(20)]] defines said second abutment and reference surface [[(44)]].

4. (Currently Amended) The head according to claim 3, wherein said quick locking/unlocking device [[(20)]] is adapted to take an unlocking position, at which said first abutment and reference surface [[(43)]] and said second abutment and reference surface [[(44)]] are in contact with each other for defining said preset position, and a

locking position at which said first abutment and reference surface [[(43)]] and said second abutment and reference surface [[(44)]] are separate from each other.

5. (Currently Amended) The head according to claim 4, wherein the quick locking/unlocking device [[(20)]] includes locking surfaces [[(32,31)]] integral with said first portion [[(8)]] and said second portion [[(9)]] of the movable arm [[(7)]]], and thrust elements [[(24)]] adapted to urge said locking surfaces [[(32,31)]] one against the other for locking said first portion [[(8)]] and said second portion [[(9)]] of the movable arm [[(7)]] with respect to each other in said locking position of the quick locking/unlocking device [[(20)]].

6. (Currently Amended) The head according to claim 5, wherein the quick locking/unlocking device [[(20)]] includes a resilient compression element [[(35)]] adapted to keep said locking surfaces [[(32,31)]] resting on each other in said unlocking position of the quick locking/unlocking device [[(20)]].

7. (Currently Amended) The head according to [[claim 5 or]] claim 6, wherein said thrust elements include a thrust pin [[(24)]] adapted to urge said locking surfaces [[(32,31)]] one against the other along a locking axis.

8. (Currently Amended) The head according to [[one of the]] claim[[s from]] 5 [[to 7]], wherein the quick locking/unlocking device [[(20)]] includes a transmission element [[(27)]], coupled with said thrust elements [[(24)]] and manually-operated, the transmission element [[(27)]] and the thrust elements [[(24)]] being coupled with said first portion [[(8)]] of the movable arm [[(7)]].

9. (Currently Amended) The head according to claim 8 [[as dependent on claim 7]], wherein said thrust elements include a thrust pin adapted to urge said locking surfaces one against the other along a locking axis and wherein said transmission element [[(27)]] is substantially disk-shaped, is coupled with the thrust pin [[(24)]] and is adapted to perform rotation displacements about the locking axis, the transmission element [[(27)]] defining said movable mechanical reference and including a curved lateral surface [[(30)]] that defines said second abutment and reference surface [[(44)]].

10. (Currently Amended) The head according to claim 9, wherein said second abutment and reference surface [[(44)]] is defined by an area with larger radial dimensions of said curved lateral surface [[(30)]].

11. (Currently Amended) The head according to claim 9 [[or claim 10]], including a drive lever [[(29)]] radially coupled with the transmission element [[(27)]] for enabling

an operator to manually drive the transmission element [[(27)]] to perform said rotation displacements about the locking axis for changing from said locking position to said unlocking position of the quick locking/unlocking device [[(20)]], and vice versa.

12. (Currently Amended) The head according to [[one of the]] claim[[s from]] 2 [[to 11]], wherein the casing [[(1)]] includes a closure plate [[(3)]] with an opening [[(14)]] adapted to allow the passage and measurement displacements of the movable arm [[(7)]], and a protruding element [[(41)]], integral with the closure plate [[(3)]], that carries said first abutment and reference surface [[(43)]].

13. (Currently Amended) The head according to claim 12, wherein a reference dowel [[(42)]] is coupled in an adjustable way to said protruding element [[(41)]] and defines said first abutment and reference surface [[(43)]].

14. (Currently Amended) The head according to [[one of the preceding]] claim[[s]] 1, wherein each of said first portion [[(8)]] and said second portion [[(9)]] of the movable arm [[(7)]] includes an end part [[(8t,9t)]] and a central part [[(8c,9c)]] of the movable arm [[(7)]], rigidly coupled with each other, the quick locking/unlocking device [[(20)]] being arranged between said central parts [[(8c,9c)]], the movable mechanical reference

[(27)] being coupled with the central part [(8c)] in the first portion [(8)] of the  
movable arm [(7)].